

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of racemizing N-carbamoyl amino acids, comprising:

contacting an N-carbamoyl amino acid with an effective amount of an N-acetyl amino acid racemase (AAR) from ~~Amycolatopsis orientalis~~ Amycolatopsis orientalis subspecies lurida.

2. (Original) The method of Claim 1, which is conducted in an enzyme-membrane reactor.

3. (Original) The method of Claim 1, wherein the N-acetyl amino acid racemase has the amino acid sequence shown in SEQ ID NO: 2.

4. (Original) The method of Claim 1, wherein the N-carbamoyl amino acid is an N-carbamoyl α -amino acid.

5. (Currently Amended) The method of Claim 1, wherein the N-carbamoyl amino acid is a natural N-carbamoyl amino acid.

6. (Currently Amended) The method of Claim 1, wherein the N-carbamoyl amino acid is an unnatural N-carbamoyl amino acid.

7. (Original) The method of Claim 1, further comprising treating the racemized N-carbamoyl amino acid with a carbamoylase.

8. (Currently Amended) A method of producing enantiomerically enriched amino acids, comprising:

contacting an N-carbamoyl amino acid with an effective amount of an N-acetyl amino acid racemase (AAR) from ~~Amycolatopsis orientalis~~ Amycolatopsis orientalis subspecies lurida, and

contacting the racemized N-carbamoyl amino acid with a carbamoylase.

9. (Original) The method of Claim 8, which is conducted in an enzyme-membrane reactor.

10. (Original) The method of Claim 8, wherein the N-acetyl amino acid racemase has the amino acid sequence shown in SEQ ID NO: 2.

11. (Original) The method of Claim 8, wherein the N-carbamoyl amino acid is an N-carbamoyl α -amino acid.

12. (Currently Amended) The method of Claim 8, wherein the N-carbamoyl amino acid is a natural N-carbamoyl amino acid.

13. (Currently Amended) The method of Claim 8, wherein the N-carbamoyl amino acid is an unnatural N-carbamoyl amino acid.

14. (Currently Amended) A method of producing enantiomerically enriched amino acids, comprising:

contacting an a hydantoin with a hydantoinase to produce the corresponding N-carbamoyl amino acid,

contacting an N-carbamoyl amino acid with an effective amount of an N-acetyl amino acid racemase (AAR) from ~~*Amycolatopsis orientalis*~~ *Amycolatopsis orientalis* subspecies *lurida* to produce a racemized N-carbamoyl amino acid, and

contacting the racemized N-carbamoyl amino acid with a carbamoylase to produce the corresponding amino acid.

15. (Original) The method of Claim 14, which is conducted in an enzyme-membrane reactor.

16. (Original) The method of Claim 14, wherein the N-acetyl amino acid racemase has the amino acid sequence shown in SEQ ID NO: 2.

17. (Original) The method of Claim 14, wherein the N-carbamoyl amino acid is an N-carbamoyl α -amino acid.

18. (Currently Amended) The method of Claim 14, wherein the N-carbamoyl amino acid is a natural N-carbamoyl amino acid.

19. (Currently Amended) The method of Claim 14, wherein the N-carbamoyl amino acid is an unnatural N-carbamoyl amino acid.

SUPPORT FOR THE AMENDMENT

Claims 1, 5, 6, 8, 12-14, 18, and 19 have been amended.

Support for the amendment of Claims 1, 5, 6, 8, 12-14, 18, and 19 can be found in the corresponding claims as previously filed.

No new matter has been added by the present amendment.